Statewide On-Call Construction Engineering & Inspection Prequalified List of Consultants for Locally Administered Public Agency (LPA) Qualifications-Based Selection Contracts

CONSTRUCTION ENGINEERING & INSPECTION

December 30, 2022

HOYLE TANNER

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December 30, 2022

Mr. William J. Oldenburg, PE, Assistant Director of Project Development
Chairman, Consultant Committee
New Hampshire Department of Transportation
7 Hazen Drive, PO Box 483
Concord, New Hampshire 03302

RE: Statewide On-Call Construction Engineering and Inspection Services Prequalified List of Consultants for Locally Administered Local Public Agency (LPA) Qualifications-Based Selection Contracts

Dear Mr. Oldenburg:

The New Hampshire Department of Transportation (NHDOT) is providing municipalities the opportunity to jump start the consultant selection process for LPA projects by maintaining a long list of prequalified firms that a short-list can be drawn from. For decades, Hoyle Tanner has demonstrated the capacity to – and amassed extensive experience in – delivering construction-related engineering and inspection services on a wide range of project types. **Our experience includes part-time, near full-time and full-time construction services on Municipally-Managed State Bridge Aid, Highway, and Local Public Agency (LPA) projects throughout New Hampshire.**

Our transportation team includes over 35 professionals based in our Manchester and Portsmouth offices with many staff living 30 minutes or more from each office. This geographic diversity allows our staff to respond quickly to a large portion of the state which is critical during construction. **All of our resident project representatives are LPA, Office of Federal Compliance (OFC) and OSHA-10 certified with many holding additional certifications** and/or having completed additional training through NETTCP, NICET, OSHA as required by NHDOT. Our team is also well-versed in record keeping and environmental permitting requirements for local transportation projects.

In addition to our staff, we routinely work with subconsultants who provide ancillary construction-phase services for LPA projects. For most LPA projects, these services largely include material testing and geotechnical engineering. We have therefore added **SW Cole Engineering, Inc.** and **Geosciences Testing & Research, Inc. (GTR)** as trusted partners to our team. Should archaeological or historic review services be required, we would enlist **Preservation Company, Independent Archaeological Consulting, LLC** or **Mondanock Archaeological Consulting, LLC** to our project team.

We appreciate your consideration of our qualifications. Our New Hampshire-based team is well-qualified for the construction phase of LPA projects, possesses a strong comprehension of DOT, DES, and federal requirements, and has a strong depth of staff and a proven track record throughout the state.

Very Truly Yours,

HOYLE, TANNER & ASSOCIATES, INC.

Sean James, PE
Division Manager - Ground Transportation
sjames@hoyletanner.com

Todd Clark, PE
Principal Transportation Engineer
tclark@hoyletanner.com

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Project Understanding & Approach

The construction phase of municipally-led projects is a challenging and rewarding phase where the municipality and design team's vision is built. Construction Engineering (CE) requires a team with an in-depth knowledge of not only engineering principals but also construction means and methods, scheduling, shop drawings, specifications, component fabrication and, depending upon the project funding, federal contracting and labor compliance requirements. Our New Hampshire based team is comprised of engineers, technicians and environmental permitting specialists that possess this wide range of knowledge that has been gained through our construction experience throughout the state.

CONSTRUCTION OBSERVATION

The level of observation is tailored to each project based on the funding requirements and client's needs, but typically includes contractor insurance review, on-site construction observation, review of shop drawings, precast component fabrication observation, quantity measurements, completion of observation reports, on-call consultation, monthly on-site construction progress meetings with the owner, review of contractor payment applications, preparation of a construction punch list and substantial and final completion documents and preparation of record drawings. **Our team has provided part-time, near full-time or full-time construction observation on over 50 municipal transportation projects in the last five years.** For federally-funded projects, our services also include on-site labor compliance interviews, weekly payroll review, commercially useful function (CUF) reviews, FHWA and NHDOT Office of Labor Compliance audits and preparation of project records.

CERTIFICATION

All our key team members (17 in total), including our project managers, have current NHDOT LPA certifications and extensive experience with the program developing and executing projects. Our key team engineers are also licensed in New Hampshire. In addition to LPA certification, many of our staff members hold certifications and/or completed additional training through NETTCP, NICET, OSHA, CESSWI and other organizations.

Our inspectors routinely provide precast bridge shop inspection services for our municipal projects.

BRIDGE CONSTRUCTION

Our team of 20 bridge professionals and designers has extensive experience in construction observation for municipal bridges of all sizes – from small culverts to multi-span bridges. This experience also includes inspection of precast and prestressed bridge components (which we self-perform). At the precast plant facility, we verify the geometry of the precast element; reinforcing steel size, spacing, and location; and quality of concrete.

Our depth of experience in the Municipally-Managed State Bridge Aid program includes 114 projects, more than any other firm. Our staff is well-versed with Municipally-Managed State Bridge Aid projects and has gained invaluable experience completing the construction-phase services for these projects as well as federally-funded LPA projects. Having this combined experience allows us to efficiently provide part-time construction phase services for these projects and near full-time services for LPA projects.

HIGHWAY CONSTRUCTION

Our team has completed construction observation of stand-alone roadway reconstruction, intersection improvements and shared use shoulders. This experience includes review of subgrade materials, temporary erosion control measures, installation of drainage structures, signage and rectangular rapid flashing beacon construction and guardrail installation.

FUNDING PROGRAM EXPERIENCE

We have experience with all LPA funding programs including **114 Municipally-Managed State Bridge Aid projects**. Several of these projects were funded through the Municipal Off-System Bridge Rehabilitation and Replacement (MOBRR) program. **Through the Transportation Alternative Program (TAP), its predecessor Transportation Enhancement (TE), the soon-to-be ending Safe Routes to School (SRTS) funding and Congestion Mitigation & Air Quality (CMAQ) programs, we have provided construction engineering services on nearly 20 projects**. As the demand for the above programs typically outweighs the state's available funding, we regularly provide design services to municipalities utilizing local funds. In the past year, these services have included bridge rehabilitations and replacements, roadway reconstruction, traffic studies, culvert invert lining, bridge inspection and utility improvement projects.

Hoyle Tanner provided construction phase services for the reconstruction of 6,200' of Union Street in Peterborough.

QUALITY CONTROL & QUALITY ASSURANCE OF CONSTRUCTION

It is important that resident project representatives can catch errors before they become major maintenance issues for the owners of transportation facilities. Hoyle Tanner maintains in-house technical professionals trained in quality assurance monitoring for construction. This service not only increases the quality of construction, but also provides enhanced project visibility to the owners. Reports are completed during our site observations and address the following:

- Progress of Construction & Quality of Work Observed
- Important Findings During Construction
- Concerns Requiring Attention

Senior advisory engineers review the site reports and project photographs, and frequently discuss construction progress with the resident project representatives as an added level of quality assurance.

Environmental compliance is a key component of all construction phase services.

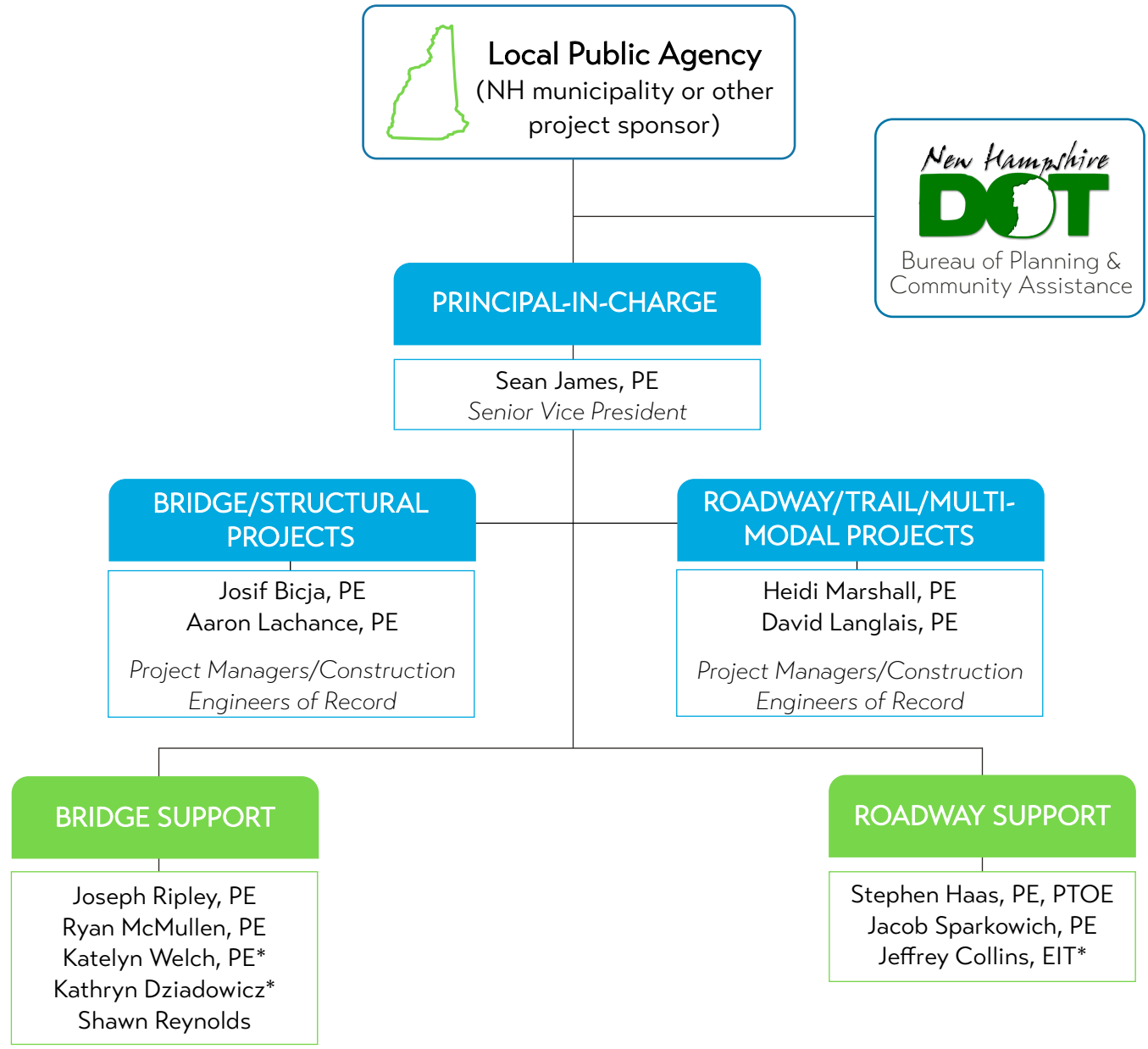
SUBCONSULTANTS

For this prequalification submittal, we have added subconsultants who we regularly partner with on municipal transportation projects and who can complement Hoyle Tanner's services. The subconsultants for each project are expected to vary depending on the type of project and services required. **SW Cole Engineering, Inc.** has provided full-service construction-phase material testing services to Hoyle Tanner on over 70 projects, and their staff holds numerous specialty testing licenses. **Geosciences Testing & Research, Inc. (GTR)** provides a wide range of geotechnical services and specializes in pile driving analysis during driving. Should archaeological or historic review services be required, we would add **Preservation Company, Independent Archaeological Consulting, LLC** or **Monadnock Archaeological Consulting, LLC** to our team.

CONCLUSION

Municipal design projects require responsive firms that understand the goals and constraints of the community, as well as NHDOT and funding requirements. Our experienced municipal transportation professionals are eager to assist municipalities across the state with the construction of their projects.

Organizational Chart



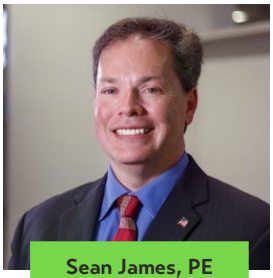
SUBCONSULTANT PARTNERS

MATERIAL TESTING	PDA TESTING	HISTORIC REVIEW	ARCHAEOLOGICAL
SW Cole Engineering, Inc.	Geosciences Testing & Research, Inc.	Preservation Company	Independent Archaeological Consulting, LLC Monadnock Archaeological Consulting, LLC

* Resume not included, but is available upon request

Project Team

SENIOR LEADERSHIP


Sean James, PE

Sean James, PE will be the Principal-in-Charge and serve as the primary point-of-contact for projects stemming from this prequalification. Sean has over 27 years of municipal transportation project construction experience including over 70 Municipally-Managed State Bridge Aid program projects and a dozen federally-funded LPA projects.

PROJECT MANAGEMENT

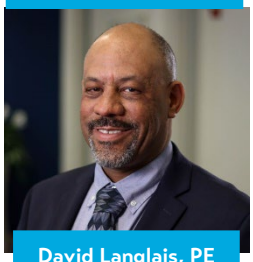
We anticipate a wide variety of potential projects and are therefore proposing several project managers with extensive experience in the construction of transportation projects including the labor compliance reviews and various documentation required for federally-funded projects. As part of the proposal and/or scope development phases, we would meet with the client to gain a better understanding of the project goals and challenges and develop a project team with the most appropriate manager and field personnel.

Josif Bicja, PE

Aaron Lachance, PE

Hoyle Tanner's bridge project managers include **Josif Bicja, PE** and **Aaron Lachance, PE** who each have over 18 years of experience and a wealth of municipal bridge project experience throughout the state. Josif has experience on over 80 municipal bridge projects of all types including administration and management of seven construction projects last year alone. In the past two years, Aaron has managed the construction phase for projects in Portsmouth, Plaistow, Rye, and Barrington.

Heidi Marshall, PE


David Langlais, PE

Our roadway project managers include **Heidi Marshall, PE** and **David Langlais, PE**. Heidi has over 37 years of municipal transportation project experience including construction-phase services. David has over 15 years of experience inspecting and administering NHDOT and municipal highway and roadway projects. David understands NHDOT construction policies and procedures, having performed on multiple assignments over three consecutive multi-year NHDOT Construction Engineering & Inspection on-call services agreements.

FIELD PERSONNEL

Like the project management team members, Hoyle Tanner's field professionals typically focus on either bridge, roadway or site design and construction projects; therefore, the list of potential field personnel covers each of those disciplines, with varying levels of experience in each, allowing for maximum flexibility in staffing.

Project Team

CONSTRUCTION ENGINEERING & INSPECTION SERVICES IN SUPPORT OF LPA PROJECTS PERSONNEL PROJECT ROLE	YEARS OF EXPERIENCE	YEARS WITH FIRM	LPA CERTIFIED	TECHNICIAN INSPECTOR - LI, L2, L3	ENGINEER INSPECTOR - L I	ENGINEER INSPECTOR - L2	ENGINEER INSPECTOR - L3	PM/CON. ENG OF RECORD	ENVIRONMENTAL INSPECTOR	NH LICENSED PE	CESSWI CERTIFIED	NETTCP CERTIFIED
Sean James, PE *Principal-in-Charge*	26	26	●			●	●			●		
Heidi Marshall, PE *Project Manager*	37	4	●			●	●			●		
Josif Bicja, PE *Project Manager*	18	18	●			●	●			●		
Aaron Lachance, PE *Project Manager*	18	8	●			●	●			●		
David Langlais, PE *Project Manager*	21	16	●			●	●		●	●		
Steve Haas, PE, PTOE *Sr Transportation Engineer*	20	16	●			●	●			●		
Shawn Reynolds *Resident Project Representative*	23	22	●			●			●			●
Joe Ripley, PE *Structural Engineer*	11	11	●			●				●		
Ryan McMullen, PE *Structural Engineer*	7	4	●			●				●		
Jake Sparkowich, PE *Transportation Engineer*	10	9				●				●		
Jeff Collins, EIT *Transportation Engineer*	21	21				●				●		
Katie Welch, PE *Structural Engineer*	7	7	●			●				●		
Kathryn Dziadowicz *Structural Engineer*	4	4	●			●						
Subconsultant Teammates			●						●	●	●	●

References

The following client references are familiar with Hoyle Tanner's capabilities and performance on various projects. We encourage you to call upon the following individuals as a testament to the quality and thoroughness of the work we do for our clients.

REFERENCE	PROJECTS
MICHAEL FOWLER, PE **Public Works Director** Town of Derry 14 Manning Street Derry, New Hampshire 03038 (603) 432-6144 mikefowler@derrynh.org	• NH Route 28 Improvements • Rockingham Road (NH Route 28) Bridge Replacement over Tributary G to Beaver Brook • North High Street Culvert • Florence Street Bridge over Shields Brook • Drew Road Bridge over Drew Brook • South Avenue Bridge over Shields Brook • North Shore Road over Tributary to Beaver Lake • Fordway Road Bridge over Beaver Brook • North Shore Road over Taylor Brook • Sunset Avenue Culverts Design & Bid • Franklin Street Culvert over Horne Brook
MICHAEL BRANLEY, MPA **Town Administrator** Town of Swanzey PO Box 10009 Swanzey, New Hampshire 03446 (603) 352-7411, ext. 107 mbranley@swanzeynh.gov	• Warmac Road Bridge over Perry Brook • Christian Hill Road Bridge • Rabbit Hollow Road Bridge over Perry Brook • Culverts over Bailey Brook
DEE VOSS **Special Projects Manager** Town of Plaistow 145 Main Street Plaistow, New Hampshire 03865 (603) 382-5200, ext. 202 dvoss@plaistow.com	• Westville Road Bridge Replacement • Infrastructure Project, Safe Routes to School, Main Street • Pollard Road Culvert Easement Assistance

SEAN JAMES, PE
Senior Vice President – Principal-in-Charge

Sean has performed structural analysis and design of steel, prestressed concrete, reinforced concrete, masonry and wooden covered bridge repair, rehabilitation and replacement projects, as well as NBIS bridge inspection. His experience also includes inspection, design or rehabilitation of parking garages, historic buildings, sign structures and environmental containment structures. His project experience includes environmental permitting, NEPA and Section 106 review, bidding and construction inspection and administration. He serves as Hoyle Tanner's Division Manager of Ground Transportation, focusing on successful delivery of projects to our clients.

- Westville Road Bridge, Plaistow, NH: *Principal-in-Charge*
- Rabbit Hollow Road Bridge over Perry Brook, Swanzey, NH: *Principal-in-Charge*
- Piscataquog River Trail Phase IV, Manchester, NH: *Project Manager*
- Rockingham Road (NH Route 28) Bridge Replacement over Tributary G to Beaver Brook, Derry, NH: *Project Manager*
- Heritage Rail Trail Connection to Mine Falls Park, Nashua, NH: *Principal-in-Charge/Project Manager*

Registrations:

Professional Engineer: NH, ME, VT, PA, NY

Professional Associations:

- National Society for the Preservation of Covered Bridges (NSPCB)
- Structural Engineers of New Hampshire (SENH)

HEIDI MARSHALL, PE
Roadway/Trail/Multi-Modal Project Manager

Heidi is a Senior Engineer that has been assisting New England communities with engineering needs for over three decades. Her expertise with municipal engineering and construction projects includes municipal roadway, sidewalk, path, trail, athletic fields, infrastructure, circulation and parking design. Heidi has led construction administration efforts and/or held responsibility for primary oversight of federally-funded projects ranging from $43 million to $200,000.

- Granite Street Roadway & Bridge Construction-Phase Services, Manchester, NH: *Construction Team Leader*
- South Street Design & Construction, Milford, NH: *Team Leader/Project Manager*
- Elm Street/Gaslight District Improvements, Manchester, NH: *Team Leader/Project Manager*
- Daniel Webster Highway Sidewalk Improvements, Merrimack, NH: *Team Leader/Project Manager*
- Town Hall Beautification & Road Safety Project, Amherst, NH: *Team Leader/Project Manager*
- Daniel Webster Highway, Merrimack, NH: *Team Leader/Project Manager*
- NH Route 13/Emerson Road/Armory Road Intersection Design & Construction, Milford, NH: *Team Leader/Project Manager*

Registrations:

Professional Engineer: NH, ME, VT

Professional Associations:

American Society of Civil Engineers - NH (ASCE-NH) - Past President, Clerk, Vice President
American Society of Civil Engineers (ASCE)

JOSIF BICJA, PE
Associate – Bridge & Structural Project Manager

Josif has extensive experience in the design, rehabilitation, inspection, and construction observation and administration of numerous bridges, covered bridges, and other municipal infrastructure projects. He has served as a project manager, structural design engineer, construction inspector and construction administrator on over 50 NHDOT Municipally-Managed State Bridge Aid projects. Josif is among Hoyle Tanner's most experienced municipal engineers and is regularly engaged by his peers to consult on construction-related issues. He also leads Hoyle Tanner's regular internal construction education sessions.

Registrations:

Professional Engineer: NH, VT

Professional Associations:

National Society for the Preservation of Covered Bridges (NSPCB)
Structural Engineers of New Hampshire (SENH)

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Senior Structural Engineer*
- Westville Road Bridge, Plaistow, NH: *Senior Structural Engineer*
- Rabbit Hollow Road Bridge over Perry Brook, Swanzey, NH: *Project Manager*
- Piscataquog River Trail Phase IV, Manchester, NH: *Structural Engineer*
- Rockingham Road (NH Route 28) Bridge Replacement over Tributary G to Beaver Brook, Derry, NH: *Project Manager*
- Stage Road over Nighthawk Hollow Brook, Gilmanton, NH: *Project Manager*

AARON LACHANCE, PE
Associate – Bridge & Structural Project Manager

Aaron is a project manager and senior structural engineer with 16 years of design and construction experience related to state and municipal bridge, roadway and infrastructure improvement projects for municipalities throughout New Hampshire as well as numerous state transportation agencies. Aaron is NHDOT LPA certified and has experience with LPA projects ranging from multi-use path construction to large-scale bridge and roadway construction projects.

Registrations:

Professional Engineer: NH, MA, ME

Professional Associations:

New Hampshire Public Works Association (NHPWA) Board of Directors
Structural Engineers of New Hampshire (SENH)

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Project Manager*
- Westville Road Bridge, Plaistow, NH: *Project Manager*
- Dewey Street Pedestrian Bridge, Rochester, NH: *Project Manager*
- Route 125 Pedestrian Bridge, Rochester, NH: *Project Manager*
- Market Street & Kearsarge Way Bridge Rehabilitations, Portsmouth, NH: *Project Manager*
- Peirce Island Bridge Evaluation & Deck Repairs, Portsmouth NH: *Project Manager*

Registrations:

Professional Engineer: NH

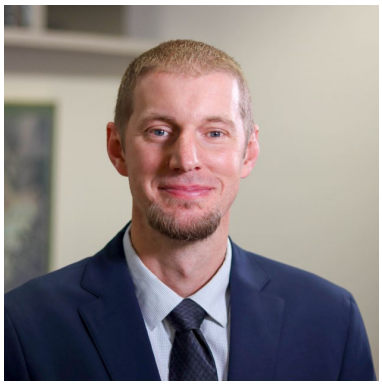
Professional Associations:

American Consulting Engineers Council (ACEC-MA) - Health & Safety Forum

DAVID LANGLAIS, PE
Roadway/Trail/Multi-Modal Project Manager

David specializes in administering construction-phase services on projects ranging in size from municipally managed to statewide DOT, and has a strong dedication to serving clients' needs. He is frequently called upon to act as a liaison between clients, contractors, and abutters to ensure that all parties concerns are communicated effectively. He is skilled in the nuances of rock blasting and has spent a number of years directly managing blasting related issues including: coordinating blasting between concurrent projects; blasting related traffic impacts; blasting analysis and design; and groundwater monitoring for residual effects from blasting. David is also the company's Safety Coordinator, responsible for being knowledgeable in current safety rules and practices.

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Project Manager*
- Construction Observations Services, Various Projects, Bedford, NH: *Project Manager*
- 2009 - 2011 NHDOT Statewide On-Call Construction Engineering & Inspection Services, Statewide, NH: *Resident Engineer*
- NH Route 101 over the Contoocook River - Part A & B, Peterborough, NH: *Traffic Engineer*



Registrations:

Professional Engineer: NH, MA, ME, VT

Professional Associations:

New Hampshire Institute of Transportation Engineers (NHITE) - Former President

STEPHEN HAAS, PE, PTOE
Senior Transportation Engineer

Steve assists clients in identifying infrastructure problems, as well as the associated transportation engineering solutions. Steve specializes in roadway and traffic engineering, traffic analysis, and intersection and traffic signal layouts. Because of his specialty, he is knowledgeable in the AASHTO, FHWA, ITE, and TRB transportation guidelines. He is well versed with NHDOT and VTrans standards. His understanding of balance, forward planning, and attention to detail is what makes him a respected mentor to his team. Steve has been the project manager or designer of many successful NH LPA projects for several communities, with involvement from design through construction.

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Lead Roadway Engineer*
- Main Street Sidewalk, Plaistow, NH: *Project Manager*
- Westville Road Bridge, Plaistow, NH: *Lead Roadway Engineer*
- Heritage Rail Trail Connection to Mine Falls Park, Nashua, NH: *Lead Roadway Engineer*
- Lyndeborough Road Bridge over South Branch of Piscataquog River: *Roadway Engineer*

Certifications:

NASSCO- Pipeline Assessment & Certification Program
NETTCP - Hot Mix Asphalt Paving Inspector
NH LPA Certification for Labor Compliance
NH LPA Certification Training

SHAWN REYNOLDS
Resident Project Representative

Shawn has a strong background in construction and design of road reconstruction, water, and wastewater projects, with several of those being NHDOT LPA projects. He has served as a resident engineer, overseeing the construction of bridge and roadway infrastructure, streetscape and downtown revitalization projects, gravity sewers, pumping stations, force mains, storm drainage, water mains, and the relocation of existing utilities. He has conducted numerous field investigations and detailed surveys of existing utilities and site conditions. Shawn previously served as a contractor's construction foreman on several large environmental remediation and construction projects throughout Massachusetts and New Hampshire.

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Resident Project Representative*
- 2009 - 2011 NHDOT Statewide On-Call Construction Engineering & Inspection Services, Statewide, NH: *Construction Engineer*
- Henniker Western Avenue Bridge Replacement: *Resident Project Representative*

Somersworth Downtown Utilities & Infrastructure Project: *Resident Project Representative*

Registrations:

Professional Engineer: NH

Professional Associations:

ACEC-NH - Emerging Leaders Committee (2016 – Current)
Structural Engineers of New Hampshire (SENH) - Younger Member's Group Board Member (2017 – Current)

JOSEPH RIPLEY, PE
Structural Engineer

Joe's experience includes bridge design, inspection, load rating, shop drawing review, and construction administration and observation for numerous municipal clients as well as for NHDOT, MaineDOT, VTrans and NYSDOT. He has served as project engineer and/or resident engineer on several LPA projects in New Hampshire. His experience also includes inspection and rehabilitation of various other structures including covered bridges and parking garages and the use of small unmanned aerial systems (sUAS) for site mapping and bridge inspections. Joe is fluent in various software programs such as Merlin-Dash, LEAP Bridge, GROUP/L-Pile, STAAD and Microstation.

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Staff Engineer*
- Rabbit Hollow Road Bridge over Perry Brook, Swanzey, NH: *Project Engineer*
- Piscataquog River Trail Phase IV, Manchester, NH: *Project Engineer*
- Rockingham Road (NH Route 28) Bridge Replacement over Tributary G to Beaver Brook, Derry, NH: *Project Engineer*
- Heritage Rail Trail Connection to Mine Falls Park, Nashua, NH: *Structural Engineer*

RYAN MCMULLEN, PE
Structural Engineer

Ryan has experience in the design and load rating of simple span vehicular bridges as well as the drafting of preliminary and final design plans. Other experiences include developing bridge engineering studies, preliminary design reports, and inspection of fracture critical bridges. He has performed construction administration for pedestrian and simple span vehicular bridges, and has been on site to inspect precast concrete bridge elements.

Registrations:

Professional Engineer: NH

Professional Associations:

Structural Engineers of New Hampshire (SENH)

- Mallego Road Bridge, Barrington, NH: *Project Engineer*
- Thornton Ferry Road Bridge, Amherst, NH: *Project Engineer*
- Cider Mill Road bridge, Bedford, NH: *Project Engineer*
- Crystal Lake Bridge, Gilmanton, NH: *Project Engineer*
- Stage Road over Unnamed Brook, Gilmanton, NH: *Project Engineer*
- Kearsarge Way & Market Street Bridges, Portsmouth, NH: *Project Engineer*
- Epping Road/Winter Street/Spring Street TAP Sidewalks, Exeter, NH: *Resident Project Representative*

JACOB SPARKOWICH, PE
Transportation Engineer

Jacob's experience has included progressive opportunities to meet civil/site, and roadway and bridge engineering challenges. During his career as a design engineer, he has developed roadway geometrics and site grading, temporary and permanent traffic signal designs, hydrologic and hydraulic calculations, stormwater BMP design, and utility mapping on state and municipal projects. As an accomplished engineer, he mentors junior staff on all aspects of roadway design. While he works on all types of projects in our transportation group, he harbors a growing interest in traffic engineering. For projects large and small, his proficiency and continued work on our design software platforms, including Microstation, InRoads, Autodesk Civil 3D, SignCAD, Synchro, SimTraffic, and HydroCAD, has enabled our team to meet our clients' project goals and visions. Jake utilizes hands-on site construction experience gained early in his career to develop and help implement engineering solutions that are practical and constructible.

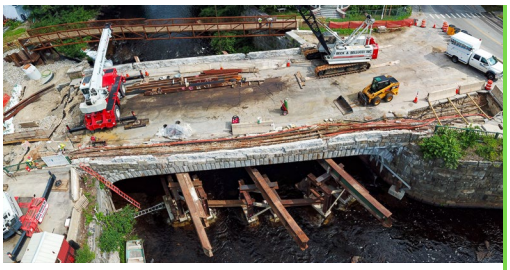
Registrations:

Professional Engineer: NH

Professional Associations:

New Hampshire Institute of Transportation Engineers (NHITE) - Secretary/Treasurer 2020

- Main Street Bridge & US Route 202 Reconstruction, Peterborough, NH: *Roadway Engineer*
- Westville Road Bridge, Plaistow, NH: *Roadway Engineer*
- Rabbit Hollow Road Bridge over Perry Brook, Swanzey, NH: *Project Engineer*



MAIN STREET BRIDGE REPLACEMENT & US 202 RECONSTRUCTION

Peterborough, New Hampshire

Completion Date: June 2022

Services Provided:

- Full-Time Construction Administration
- Shop Drawing & Pay Application Review
- Labor Compliance Review
- Public Outreach & Abutter Coordination
- Material Testing

Replacement of the historic, but structurally deficient, Main Street Bridge over the Contoocook River in Downtown Peterborough was the catalyst for one of the largest and most complex transportation infrastructure projects the Town has undertaken in recent history. Hoyle Tanner has been working with the Town and NHDOT on this federally-funded LPA project from the engineering study through final design phases and is now providing full-time construction administration and oversight. This multi-year, multi-discipline project began construction in March 2020 after many years of planning and design.

In addition to bridge and roadway reconstruction, this project also includes construction of a new kingpile retaining wall to support the realigned Route 202 roadway, reconstruction of a portion of the Transcript Dam, in-situ stabilization of an historic boulder retaining wall, lining of an historic granite canal, and significant temporary and permanent utility relocations.

MAIN STREET SIDEWALK IMPROVEMENTS (SRTS)

Plaistow, New Hampshire

Completion Date: October 2019

Services Provided:

- Overall Construction Administration
- Shop Drawing & Submittal Review
- Near Full-Time Construction Observation
- Labor Compliance Review
- Public Outreach & Abutter Coordination
- Pay Application Review

Plaistow spent years planning to improve pedestrian walkability and safety in their downtown along Main Street (NH 121A) and Elm Street, adjacent to Pollard Elementary, and selected Hoyle Tanner through the FHWA's Safe Routes to School (SRTS) program administered by NHDOT under the Local Public Agency (LPA) guidelines. Our design included over 650 linear feet of new sidewalk, crosswalks, curb extensions, new pedestrian signage, Rectangular Rapid Flashing Beacons (RRFB), and aesthetic landscaping and lighting.

We also provided construction administration and near full-time oversight to ensure the improvements were constructed meeting the stringent LPA guidelines. Traffic control and pedestrian access, and the associated coordination with the contractor, were key elements of our oversight. Limiting disruption to traffic on both Elm Street and NH 121A, a popular alternative to NH 125 with significant truck volumes, was a priority for the Town and NHDOT; this was a significant challenge due to the modifications to the intersection of these two roadways.

WESTVILLE ROAD BRIDGE

Plaistow, New Hampshire

Completion Date: May 2020

Services Provided:

- Overall Construction Administration
- Shop Drawing & Submittal Review
- Part-Time Construction Observation
- Pay Application Review

This project involved the complete replacement of the Westville Road Bridge over the Little River, and Hoyle Tanner helped the Town bring this project from engineering study through completion of construction. The existing 14' span cast-in-place concrete arch, originally constructed in 1940, required replacement because of its deteriorated condition and the need to make significant improvements to the roadway geometry at the crossing. The replacement structure is a 28' span precast rigid frame founded on bedrock.

Hoyle Tanner administered construction and provided part-time construction observation including precast plant inspections during fabrication of the precast rigid frame and wingwalls. The most significant challenge during construction was a tight construction schedule that required the bridge, which was closed during construction, to be re-opened prior to the start of the school year. This project was funded through the NHDOT Municipally-Managed State Bridge Aid program.

PISCATAQUOG RIVER TRAIL PHASE IV

Manchester, New Hampshire

Completion Date: December 2016

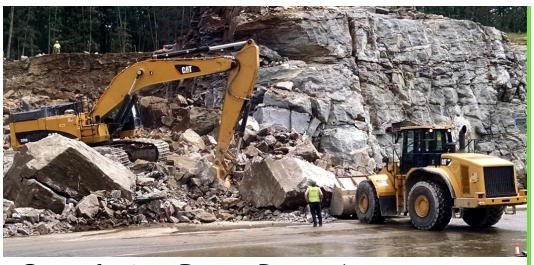
Services Provided:

- Study
- Design
- Inspection
- Cultural Resources Coordination
- NEPA Process
- Construction Administration

The City of Manchester selected Hoyle Tanner for design and construction services for the final phase of the Piscataquog Trail. This 1,800' long section of the trail is built on a former rail bed and the project included a local street crossing, easement acquisitions, pedestrian bridge over the Piscataquog River, trail section upgrade and paving, and landscape and wayfinding enhancements.

A full inspection and evaluation of the existing trestle was performed and both rehabilitation and replacement options studied. Replacement of the 1941, 7-span timber trestle with single-span steel truss was selected as the preferred alternative. The trail improvements include paving the majority of the trail section and installing guardrail and fencing, as appropriate, to guide users along the trail. The intersection with an adjoining trail was improved with signs, landscaping, and pavement to better connect the two trails.

Near full-time construction observation and construction contract administration was provided for this project. The project was partially funded through the federal Transportation Enhancement program and was completed through the NHDOT Local Public Agency (LPA) program.



Completion Date: December 2016

Services Provided:

- Construction Administration
- Field Measurements
- Construction Observation
- Documentation
- Traffic & Erosion Control Monitoring

NHDOT CE&I CONTRACT 2015-2017 ASSIGNMENTS

Salem-Windham, New Hampshire

Hoyle Tanner provided field expertise supporting and assisting NHDOT staff as a member of the field team with responsibility to administer, inspect, monitor, report and document the contractor's daily operations for compliance with contract documents and FHWA and state requirements.

Our resident engineers specifically oversaw rock blasting operations, including blast analysis review, quantity measurement, blast observation, traffic management, blast related water quality review, and coordination between concurrent contracts. Additional responsibilities included CPM schedule review; construction inspection; monthly reporting; social media live updates; and liaising between the Department and abutters, fielding concerns and complaints related to blasting.

This contract is part of the I-93 Salem-Manchester Corridor Widening and included reconstruction and widening of 2.2 miles of I-93 northbound mainline, reconstruction of NH Routes 111 and 111A, and construction of new northbound on/off ramps in the vicinity of Exit 3 in Windham, New Hampshire.

Completion Date: April 2013

Services Provided:

- Design & Permitting
- Stormwater Management
- Traffic Analysis & Signalization
- Construction Phase Services

NH ROUTE 28 IMPROVEMENTS

Derry, New Hampshire

The NH Route 28 Improvements Project covers an area that accommodates 22,000 vehicles per day and numerous business and side road access points. Hoyle Tanner was selected to help alleviate a traffic "bottle neck" within the heavily traveled commercial district. Existing signalized and non-signalized intersections were first analyzed, then animation models were created to visualize the proposed additional signalization and roadway widenings. An added thru lane, turning lanes, and interconnected signal system increased roadway capacity and improved traffic operations.

Early project efforts included stormwater coordination with the design of a large off-site commercial development located up gradient in the watershed. Hoyle Tanner prepared the contract documents and assisted the Town in bidding, was responsible for construction administration, and resident engineering services. This project was completed entirely with Town funds.

HERITAGE RAIL TRAIL CONNECTION TO MINE FALLS PARK

Nashua, New Hampshire

Completion Date: August 2019

Services Provided:

- NEPA Process
- Design
- Public Outreach/Participation & Coordination
- Resource Agency Coordination
- Construction Administration
- Construction Observation

This project connects the 1.3-mile Heritage Rail Trail via a 450' paved trail and 90' pedestrian bridge over the Nashua Canal to the Mine Falls Park Recreation Area. To minimize lateral loads on the historic stone retaining walls along the canals, the bridge is founded on a helical anchor foundation. The new trail provides access to the park from one of the City's most densely populated neighborhoods known as the "Tree Streets."

The start of the connecting trail included an ADA-compliant ramp structure to make up the approximate 7' grade differential between the trail and Everett Street. The trail continues within the existing Right-of-Way on Everett Street to a mid-block crossing on Ledge Street. Due to the traffic volumes on Ledge Street, the crossing included Rectangular Rapid Flashing Beacons.

Near full-time construction observation and administration was provided for this project. The project was partially funded through the Federal Transportation Alternatives Program and is administered through the Local Public Agency (LPA) program.

STAGE ROAD OVER NIGHTHAWK HOLLOW BROOK

Gilmanton, New Hampshire

Completion Date: December 2019

Services Provided:

- Study
- Hydrologic/Hydraulic Analysis
- Design
- Permitting Assistance
- Bidding Administration
- Construction Administration

Stage Road is a 4.5-mile long rural, minor collector road within the Town of Gilmanton which connects NH Route 107 to the south with NH Route 140 to the north. The project includes the replacement of the existing 25' span steel stringer bridge with a 54.5' span prestressed concrete deck beam superstructure supported on semi-integral precast concrete abutments. Included in the project was a detailed hydrologic/hydraulic analysis to size the new structure in accordance with NHDOT and NHDES guidelines, as well as coordination with NHDES and NHDHR. Approximately 925' of roadway reconstruction were included in the project due to the proposed 3' raise in profile to eliminate roadway flooding.

The use of a temporary bridge structure with a single lane of alternating one-way traffic was recommended. This alternative allowed complete removal of the existing bridge and construction of its replacement with a new bridge while traffic was maintained on the temporary bridge. This project was funded through the NHDOT Municipally-Managed State Bridge Aid program.

LYNDEBOROUGH ROAD BRIDGE OVER SOUTH BRANCH OF PISCATAQUOG RIVER

New Boston, New Hampshire

Completion Date: December 2010

Services Provided:

- Design
- Permitting Assistance
- Bidding Administration
- Construction Administration
- Construction Observation

The NHDOT red listed-bridge carrying Lyndeborough Road over the South Branch Piscataquog River was narrow with substandard roadway approaches and deteriorated substructure and superstructure. Hoyle Tanner evaluated bridge, roadway, and traffic control alternatives and recommended bridge replacement consisting of a 55' long single span steel stringer structure on cast-in-place concrete abutments and wingwalls founded on bedrock. The roadway approaches were improved to provide better sight distance, an improved horizontal alignment, proper roadway superelevation, and the creation of a T-intersection with Misty Meadows Road. To maintain traffic during construction, a full traffic detour was implemented, accelerating construction and reducing cost as compared to phased construction.

Hoyle Tanner provided all design, permitting, Right-of-Way coordination, utility relocation coordination, cultural resource coordination, and construction-phase services for the project. The project was funded through the NHDOT Municipally-Managed State Bridge Aid program.

EPPING ROAD/WINTER STREET/SPRING STREET TAP SIDEWALKS

Exeter, New Hampshire

Completion Date: September 2020

Services Provided:

- Study
- NEPA Documentation Process
- Traffic Analysis/Study
- Right-of-Way Coordination
- Final Design
- Bid Process Administration

Promoting and providing safe pedestrian facilities to connect their residential neighborhoods with downtown, Philips Exeter Academy, and the Amtrak rail station is a high priority for the Town. Recognizing that there were gaps in their connected sidewalk network and limited suitable pedestrian crossing facilities, the Town selected Hoyle Tanner to develop solutions for three key locations - on Epping Road (NH Route 27), Winter Street and Spring Street. As the project is funded by Federal Highway Administration through the Local Public Agency (LPA) program administered by NHDOT, the Town also needed a partner who was knowledgeable in navigating this challenging program.

Hoyle Tanner successfully led the project through the Engineering Study phase. We completed the design phase and provided near full-time construction administration and oversight.

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